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Northgate

EXPLORATION LIMITED

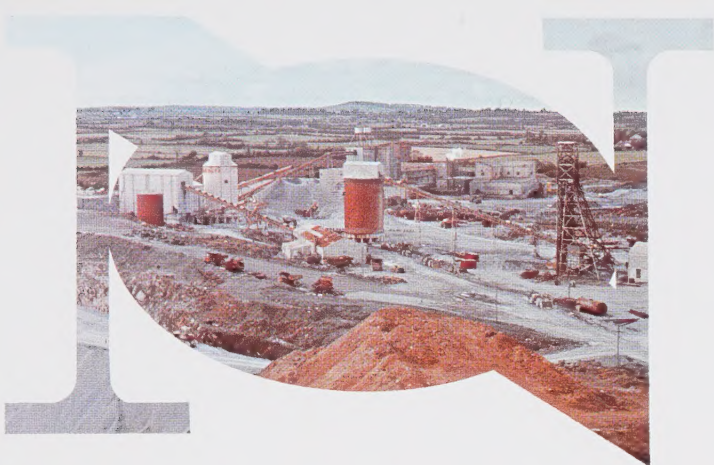
ANNUAL REPORT 1976





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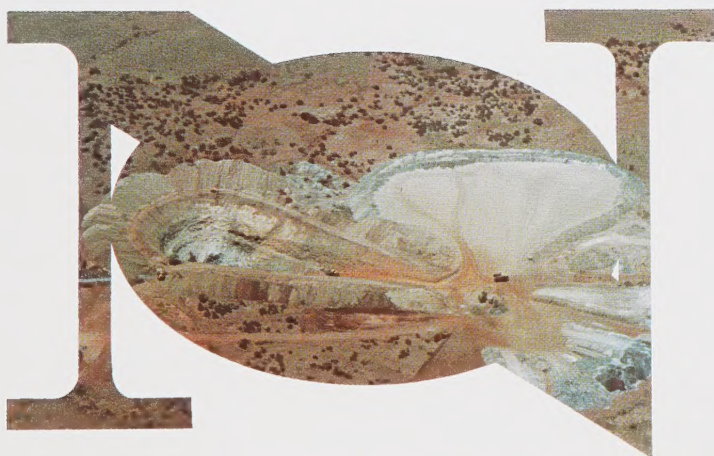
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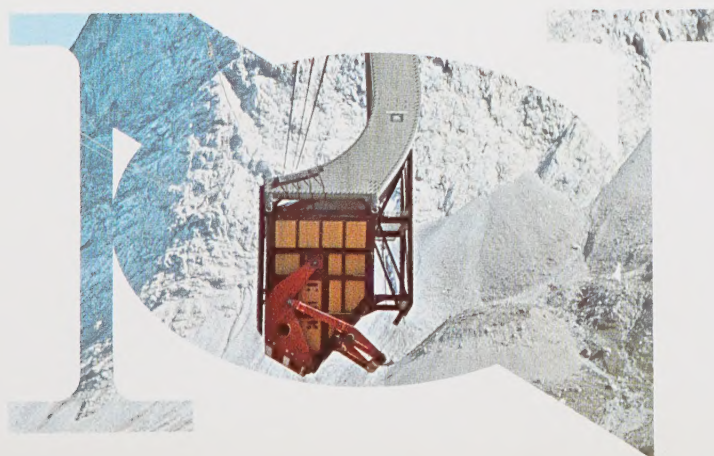
Tynagh Mine, County Galway, Republic of Ireland, operated by Irish Base Metals Limited, wholly owned subsidiary of Northgate Exploration Limited. From 1965 to 1976 more than seven million tons of ore mined and some 1.4 million tons of concentrates produced.



Navan zinc-lead mine, County Meath, Republic of Ireland, being developed by Tara Mines Limited, 75% owned by Tara Exploration and Development Company Limited.



Whundo open pit, Western Australia (Whim Creek Consolidated N.L.) scene of a modest operation during 1976, with the extraction of 6,200 tons of direct shipping ore containing an estimated 3.3 million lbs. of copper.



Black Angel Mine, West Greenland, operated by Greenex A/S, wholly owned subsidiary of Vestgron Mines Limited. Production in 1976 was 142,000 metric tons of zinc concentrate and 37,900 metric tons of lead concentrate.

Financial Highlights

	1976	(b)1975
Net smelter value	\$11,683,000	\$20,418,000
Mine operating income (before w.o.'s)	2,589,000	4,025,000
Investment income	2,391,000	1,594,000
Exchange gains	315,000	541,000
Depreciation and amortization	2,562,000	3,355,000
Net income (loss) Per share	(598,000) \$(0.09)	1,495,000 \$0.22
AT YEAR END		
Working capital	\$26,794,000	\$18,085,000
Ratio of current assets to current liabilities	5.4 to 1	4.0 to 1
Total assets	56,648,000	57,086,000
Shareholders' equity	48,779,000	49,377,000
Investments	18,194,000	23,762,000
Less provision for decline in value		1,490,000
	18,194,000	22,272,000
Fixed assets	15,981,000	15,661,000
Less accumulated depreciation	11,741,000	9,946,000
	4,240,000	5,715,000
Weighted average number of shares outstanding during the period used in computing earnings per share	6,891,699	6,891,699

Production Highlights

	1976	1975
Tynagh Mine		
Tons of ore treated	594,823	648,477
Production of concentrates		
Tons of lead concentrates	26,847	29,734
Tons of zinc concentrates	25,797	41,988
Tons of bulk concentrates	3,455	4,277
Tons of copper concentrates	2,961	2,037
Total tons of concentrates	59,060	78,036
Payable metals contained in concentrates sold		
Lead (lbs)	38.0 million	44.0 million
Zinc (lbs)	26.6 million	34.7 million
Copper (lbs)	0.8 million	0.5 million
Silver (ozs)	482,000	584,000
Gortdrum Mine		
Tons of ore treated in concentrator	—	(a)354,612
Tons of concentrates produced	—	14,183
Flasks of mercury recovered	—	423
Tons of concentrates sold	—	17,284
Flasks of mercury sold	—	nil
Payable metals contained in concentrates sold		
Copper (lbs)	—	14.5 million
Silver (ozs)	—	469,000

NOTE: (a) January-August
(b) Certain of the 1975 figures have been restated.

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LONDON OFFICE	Northgate Metals and Minerals Limited 30 St. George Street, London W1R 9FA, England Telephone: 01-491-7531, Telex 267615
MINE OFFICES	Irish Base Metals Limited Tynagh, County Galway, Republic of Ireland Gortdrum Mines (Ireland) Limited Tipperary, County Tipperary, Republic of Ireland
AUDITORS IN CANADA	Thorne Riddell & Co., Chartered Accountants Toronto, Canada
AUDITORS IN IRELAND	Griffin, Lynch & Co., Dublin, Republic of Ireland
BANKERS	The Toronto-Dominion Bank, Toronto, Canada Bank of Nova Scotia, Toronto, Canada Allied Irish Banks, Dublin, Republic of Ireland
TRANSFER AGENTS	CANADA — Crown Trust Company Toronto, Ontario; Calgary, Alberta; Vancouver, British Columbia UNITED STATES OF AMERICA — The Bank of New York, New York, N.Y. UNITED KINGDOM — Charter Consolidated Limited, Ashford, Kent, England
REGISTRARS	CANADA Canada Permanent Trust Company Toronto, Ontario; Calgary, Alberta; Vancouver, British Columbia UNITED STATES OF AMERICA The Bank of New York, New York, N.Y. UNITED KINGDOM Morgan Grenfell & Co., Limited, London, England
SOLICITORS	Fasken & Calvin, Toronto, Canada Olin, Murphy, Manuel & Lynch, New York, U.S.A. Whitney, Moore & Keller, Dublin, Republic of Ireland
STOCK EXCHANGE LISTINGS	New York Stock Exchange, New York, U.S.A. The Stock Exchange, London, England Toronto Stock Exchange, Toronto, Canada

PRESIDENT'S REPORT TO SHAREHOLDERS

During 1976 your Company continued the policy of widening its search for new opportunities for future growth while at the same time augmenting its financial strength.

These efforts have been, and will continue to be channelled in two essential directions.

First, appropriate emphasis was placed on mineral exploration, as evidenced in the detailed review of these activities elsewhere in this report to our shareholders.

Secondly, with the substantial increase in working capital during 1976, we have established the necessary financial strength that provides your Company a wide range of opportunities for the deployment of these resources, in investments — either in the form of equity purchases or acquisitions of natural resource assets which are compatible with our existing operations.

Exploration — which is the very cornerstone of any vital natural resources company — was again considerably expanded in 1976 with direct expenditures totalling some \$1.5 million. For 1977, we have budgeted an even larger sum — \$2.2 million.

The Company's financial strengths are demonstrated by the fact that net assets, including long term investments, now total in excess of \$50 million.

The effectiveness of your Company's policies is perhaps best illustrated by reviewing the events of the preceding five years.

At the end of 1971, after experiencing a net loss for that year of \$1,306,000, working capital had declined to \$128,000.

In the succeeding five years, during which the cumulative net income totalled \$17,137,000 (out of which dividends totalling \$5,782,000 were distributed) working capital increased to \$26,794,000 at the 1976 year end.

In addition, the principal investments made in the past five years, specifically in Tara Exploration and Development Company Limited and Vestgron Mines Limited, will clearly provide a significant contribution to our future earnings. Analyses of these two investment holdings appear on pages 17 to 21 in this report.

Financial Results

Consolidated net loss for the year was \$598,000 equal to \$0.09 per share as compared with a net income (restated) for 1975 of \$1,495,000 or \$0.22 per share.

Net revenue from the sale of metal and metal concentrates, which in 1976 was derived solely from the Tynagh Mine, amounted to \$11,683,000. This compares with net revenue for 1975 of \$20,418,000 from the combined operations of the Tynagh Mine and the Gortdrum Mine. Operating

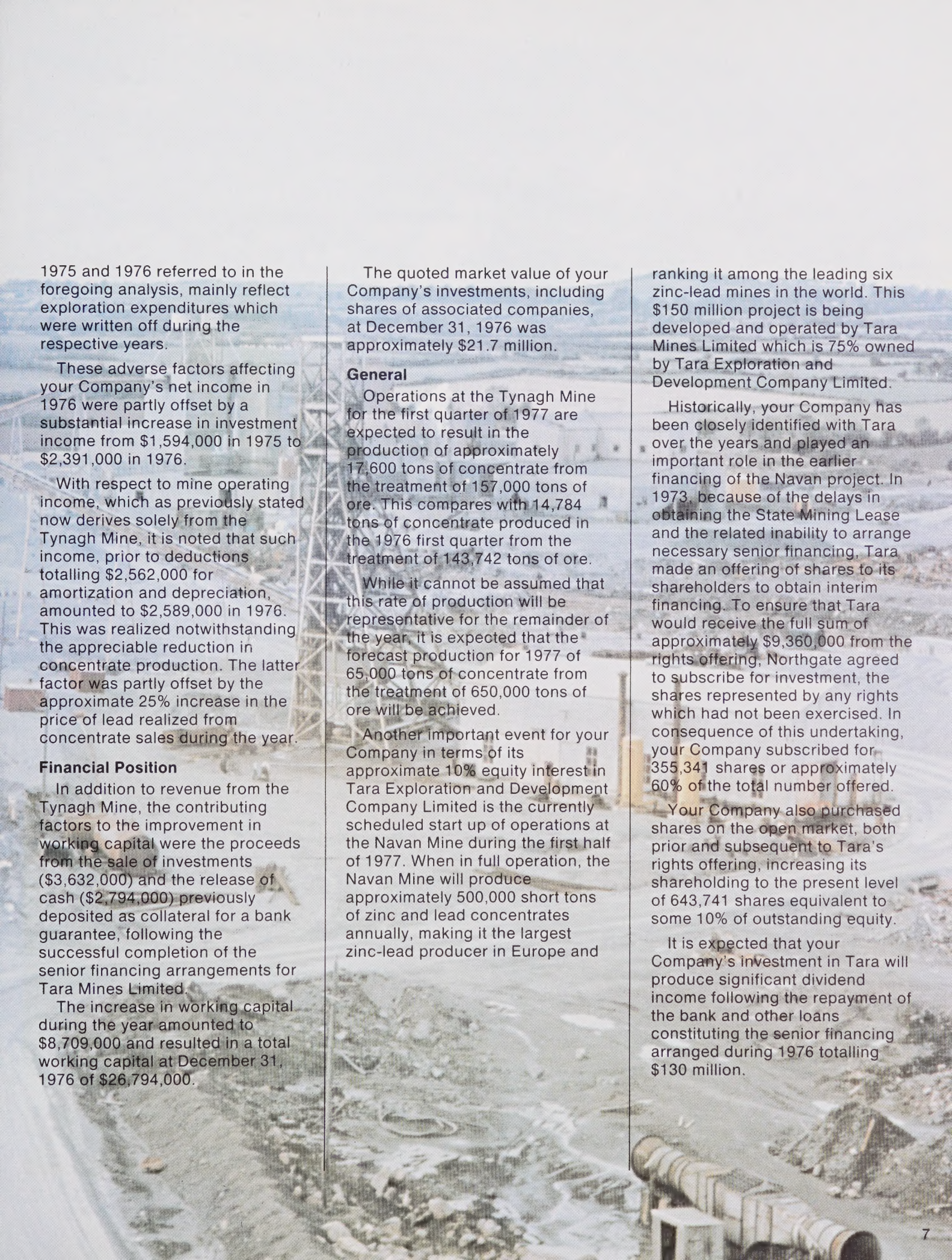
expenses in 1976 amounted to \$11,656,000 compared with \$19,748,000 for the previous year of combined operations.

The foregoing results for 1976 mainly reflect the termination, as previously announced, of operations at the Gortdrum Mine during the latter half of 1975. Operations at Gortdrum contributed \$976,000 to the Company's net income for 1975 in addition to a profit of \$584,000 from the disposal of certain fixed assets following the closure of the mine.

Other contributing factors to the net loss incurred in 1976 were the substantial increase in exploration expenditures from \$1,034,000 in 1975 to \$1,502,000 in 1976, and an increase in the Company's share of losses incurred by associated companies from \$279,000 in 1975 to \$885,000 in 1976.

Under its accounting policies, the Company and consolidated subsidiaries charge exploration expenditures to income in the period in which incurred, whereas non-producing associated mining companies defer exploration and certain administrative expenditures, with the intention that they will be amortized by charges against income from future mining operations or written off at the time a project is abandoned.

The Company's share of losses incurred by its associated companies, as was the case in



1975 and 1976 referred to in the foregoing analysis, mainly reflect exploration expenditures which were written off during the respective years.

These adverse factors affecting your Company's net income in 1976 were partly offset by a substantial increase in investment income from \$1,594,000 in 1975 to \$2,391,000 in 1976.

With respect to mine operating income, which as previously stated now derives solely from the Tynagh Mine, it is noted that such income, prior to deductions totalling \$2,562,000 for amortization and depreciation, amounted to \$2,589,000 in 1976. This was realized notwithstanding the appreciable reduction in concentrate production. The latter factor was partly offset by the approximate 25% increase in the price of lead realized from concentrate sales during the year.

Financial Position

In addition to revenue from the Tynagh Mine, the contributing factors to the improvement in working capital were the proceeds from the sale of investments (\$3,632,000) and the release of cash (\$2,794,000) previously deposited as collateral for a bank guarantee, following the successful completion of the senior financing arrangements for Tara Mines Limited.

The increase in working capital during the year amounted to \$8,709,000 and resulted in a total working capital at December 31, 1976 of \$26,794,000.

The quoted market value of your Company's investments, including shares of associated companies, at December 31, 1976 was approximately \$21.7 million.

General

Operations at the Tynagh Mine for the first quarter of 1977 are expected to result in the production of approximately 17,600 tons of concentrate from the treatment of 157,000 tons of ore. This compares with 14,784 tons of concentrate produced in the 1976 first quarter from the treatment of 143,742 tons of ore.

While it cannot be assumed that this rate of production will be representative for the remainder of the year, it is expected that the forecast production for 1977 of 65,000 tons of concentrate from the treatment of 650,000 tons of ore will be achieved.

Another important event for your Company in terms of its approximate 10% equity interest in Tara Exploration and Development Company Limited is the currently scheduled start up of operations at the Navan Mine during the first half of 1977. When in full operation, the Navan Mine will produce approximately 500,000 short tons of zinc and lead concentrates annually, making it the largest zinc-lead producer in Europe and

ranking it among the leading six zinc-lead mines in the world. This \$150 million project is being developed and operated by Tara Mines Limited which is 75% owned by Tara Exploration and Development Company Limited.

Historically, your Company has been closely identified with Tara over the years and played an important role in the earlier financing of the Navan project. In 1973, because of the delays in obtaining the State Mining Lease and the related inability to arrange necessary senior financing, Tara made an offering of shares to its shareholders to obtain interim financing. To ensure that Tara would receive the full sum of approximately \$9,360,000 from the rights offering, Northgate agreed to subscribe for investment, the shares represented by any rights which had not been exercised. In consequence of this undertaking, your Company subscribed for 355,341 shares or approximately 60% of the total number offered.

Your Company also purchased shares on the open market, both prior and subsequent to Tara's rights offering, increasing its shareholding to the present level of 643,741 shares equivalent to some 10% of outstanding equity.

It is expected that your Company's investment in Tara will produce significant dividend income following the repayment of the bank and other loans constituting the senior financing arranged during 1976 totalling \$130 million.

A similar observation with regard to dividend expectations might reasonably be made in respect of your Company's shareholding in Vestgron Mines Limited, represented by its direct ownership of 220,000 shares or 5.2% and its indirect ownership (through Westfield) of an additional 4.4%. Vestgron's 1976 Annual Report discloses that its long term bank loans had been

reduced to \$24,201,000 and the income debenture to \$2,938,000 at the year end. This represents a combined repayment during the year in interest and principal totalling about \$16.6 million. Under the terms of the Income Debentures, dividends cannot be declared or paid until the principal and interest are fully paid.

The Annual Report this year includes separate reviews of mine operations, exploration, associated companies and principal investments holdings.

Pat. J. Hughes.

President

March 28, 1977
Toronto, Canada

Pictures alongside and below show a portion of the 7,500 ton per day concentrator complex under construction at Tara's Navan Mine, County Meath, Republic of Ireland. Production at this large new zinc-lead mine is scheduled to commence in the first half of 1977.







REVIEW OF TYNAGH MINE OPERATIONS

During the year a total of 594,823 tons of ore was treated at an average rate of approximately 1,680 tons per operating day. Of this total, approximately 107,000 tons came from the new Zone III area of the mine and the balance from Zone II. This compares with 648,477 tons treated in 1975 at an average rate of approximately 1,800 tons per operating day. Substantially all of the ore treated in 1975 was from Zone II.

The reduction from the planned mining of 675,000 tons in 1976 resulted principally from problems in the underground ore handling section accentuated by a high proportion of pillar muck from Zone II, some of which was poorly fragmented. Modifications made about year end to both the ore handling schedule and to the method of pillar ore blasting, are expected to overcome these problems.

Lead and silver head grades for the year were better than predicted and the tonnage of lead concentrate was approximately as forecast, despite the reduced tons of ore treated. However, a lower than predicted head grade in both zinc and copper, together with a better zinc concentrate grade resulted in the production of significantly lower than forecast tonnages of these concentrates.

The grade of the 594,823 tons of ore fed to the dense media plant was:

Lead %	Zinc %	Copper %	Silver ozs/ton
4.00	3.02	0.19	1.70

This compares with the following average grade of the 648,477 tons treated in 1975:

Lead %	Zinc %	Copper %	Silver ozs/ton
3.94	4.27	0.19	1.64

The following is a summary of the concentrate production for 1976 with comparative figures for 1975:

	1976	1975
Tons of lead concentrate	26,847	29,734
Tons of zinc concentrate	25,797	41,988
Tons of bulk concentrate	3,455	4,277
Tons of copper concentrate	2,961	2,037
Totals	59,060	78,036

The reduction in concentrate production in 1976 compared with 1975 resulted largely from the lower tonnage and head grade of the ore treated. The current production schedule for 1977 envisages the treatment of 650,000 tons of ore, yielding an estimated 65,000 tons of concentrates.

The grades of all concentrates produced during 1976 were better than forecast, offsetting modestly the reduction in tonnages from those predicted. Although lead and zinc recoveries were below forecast, copper and silver were significantly better than predicted. Metallurgical recoveries during 1976 compared with 1975 were as follows:

	Recoveries			
	Lead %	Zinc %	Copper %	Silver %
1976	87.9	77.2	80.7	76.7
1975	87.8	80.4	70.2	66.0

The approximate totals of payable metals contained in concentrates sold during 1976 were 38.0 million pounds of lead, 26.6 million pounds of zinc, 0.8 million pounds of copper and 482,000 ounces of silver. Concentrate sales during the year included 2,806 tons of copper concentrates. The comparative figures for payable metals contained in concentrates sold during 1975 were 44.0 million pounds of lead, 34.7 million pounds of zinc, 0.5 million pounds of copper and 584,000 ounces of silver and during that year 1,225 tons of copper concentrate were sold.

Direct operating costs per ton of ore mined and treated during 1976 declined to \$12.02 from \$13.78 in 1975, largely because of the decline in the value of the pound sterling in relation to the Canadian dollar.

Ore Reserves

The underground ore reserves are located in Zone II, which occurs beneath and adjacent to the boundary of the open pit and in Zone III, which lies approximately 600 feet to the east. The latter zone was developed initially from drifts on two levels and by the end of 1976 sufficient detailed diamond drilling had been completed from the upper drift to establish the ore reserves over the full extent of the zone. Additional drifts and inclines were driven during the year for the development and exploitation of the orebodies outlined.

The following table shows the underground reserves as of December 31, 1976:—

Location	Tons	Lead %	Zinc %	Copper %	Silver oz./ton
Zone II	750,000 ⁽¹⁾	3.53	2.91	0.23	1.22
Zone III	2,000,000 ⁽²⁾	4.02	4.07	0.16	0.78
Total	2,750,000	3.89	3.75	0.18	0.90

(1) Includes a dilution allowance of 5% waste at zero grade.

(2) Includes a dilution allowance of 10% waste at zero grade because higher dilution in the mining of ore from this zone is expected.

The Zone II reserves noted above exclude approximately 270,000 tons of ore grade mineralization which was contained in the stated reserves as of December 31, 1975. This, together with an additional tonnage of other material, has not been included in the present Zone II reserves because it is situated essentially in small isolated pockets and remnants, the mining of which is unlikely to be either feasible or profitable under current smelter contract terms and metal prices.

It is also noted that there is an approximate increase of some 260,000 tons with respect to the Zone III reserves after allowing for the tonnage extracted during the year.

The following table shows the average metal prices received from sales of concentrates during 1976 with comparative prices for 1975, as well as the average quoted prices for 1976. Prices are based on London Metal Exchange quotations for lead, copper and silver, and the G. O. B. European producer price for zinc, all expressed in equivalent U.S. funds.

	Quoted Average		
	1976	1975	1976
Lead — per lb.	22.0¢	17.6¢	20.3¢
Zinc — per lb.	36.2¢	35.0¢	36.1¢
Copper — per lb.	62.1¢	53.3¢	63.9¢
Silver — per oz.	\$4.41	\$4.34	\$4.35

Subsequent to the 1976 year end there have been significant increases in the price of lead and to a lesser degree of copper and silver. The approximate current quotations (March 22, 1977) for these metals are: lead 31¢ per lb., copper 69¢ per lb., and silver \$4.95 per ounce.

continued

EXPLORATION

During 1976 your Company, through its wholly owned subsidiaries and affiliated companies, was involved in vigorous exploration programmes on a world wide scale. Exploration expenditures by Northgate and its wholly owned subsidiaries amounted to \$1,502,000 with the primary emphasis (\$1,021,000) being on the Company's extensive ground holdings in the Republic of Ireland.

In addition, Northgate advanced some \$400,000 to affiliated Westpark Exploration Company to finance the Company's share in a joint venture exploration programme on a group of gold placer concessions in the State of Alaska, U.S.A.

REPUBLIC OF IRELAND

During the year new regulations governing exploration licences in the Republic of Ireland came into effect. The regulations, which became effective on March 1st, 1976, introduced a graduated scale of licence renewal fees and require annual expenditures during the term of a licence. In addition, the normal maximum duration of a prospecting licence will be six years. These regulations have increased, and will continue to increase, the cost of exploration in the Republic of Ireland.

Over many years your Company's exploration programme in Ireland has combined extensive reconnaissance-type activity over wide areas with intensive exploration of smaller areas currently showing the most promising potential. While your Company will endeavour to continue with this policy because of its success in the past, the

increased cost of exploration combined with the time constraints imposed by these new regulations will probably lead to a reduction in the extent of ground covered by reconnaissance-type programmes.

During 1976 your Company carried out a major drilling programme on its ground holdings in Ireland. While no discovery of immediate economic significance resulted from the drilling programme, the widespread and varied nature of the mineralization located in many of the areas tested has enhanced the potential of much of the ground under exploration.

Outside the mine lease areas (Gortdrum and Tynagh) a total of 53,000 feet of diamond drilling was carried out. A substantial part of this drilling was carried out on 24 principal target areas of which the following are the more important:

Tatestown Prospect — During the year drilling on this area was concentrated to the north of the main zone of mineralization outlined by previous drilling. The widely spaced holes are intended to test the geological structure and continuity of the stratigraphic horizon which hosts the Tatestown deposit. This horizon was found to be present over much of the area but there is evidence that faulting has caused structural complexities in several areas. The horizon invariably carries background mineralization over thicknesses of 30 to 40 feet. Additionally, there are indications that a second zone of base metal enrichment may exist in this area and further drilling is planned.

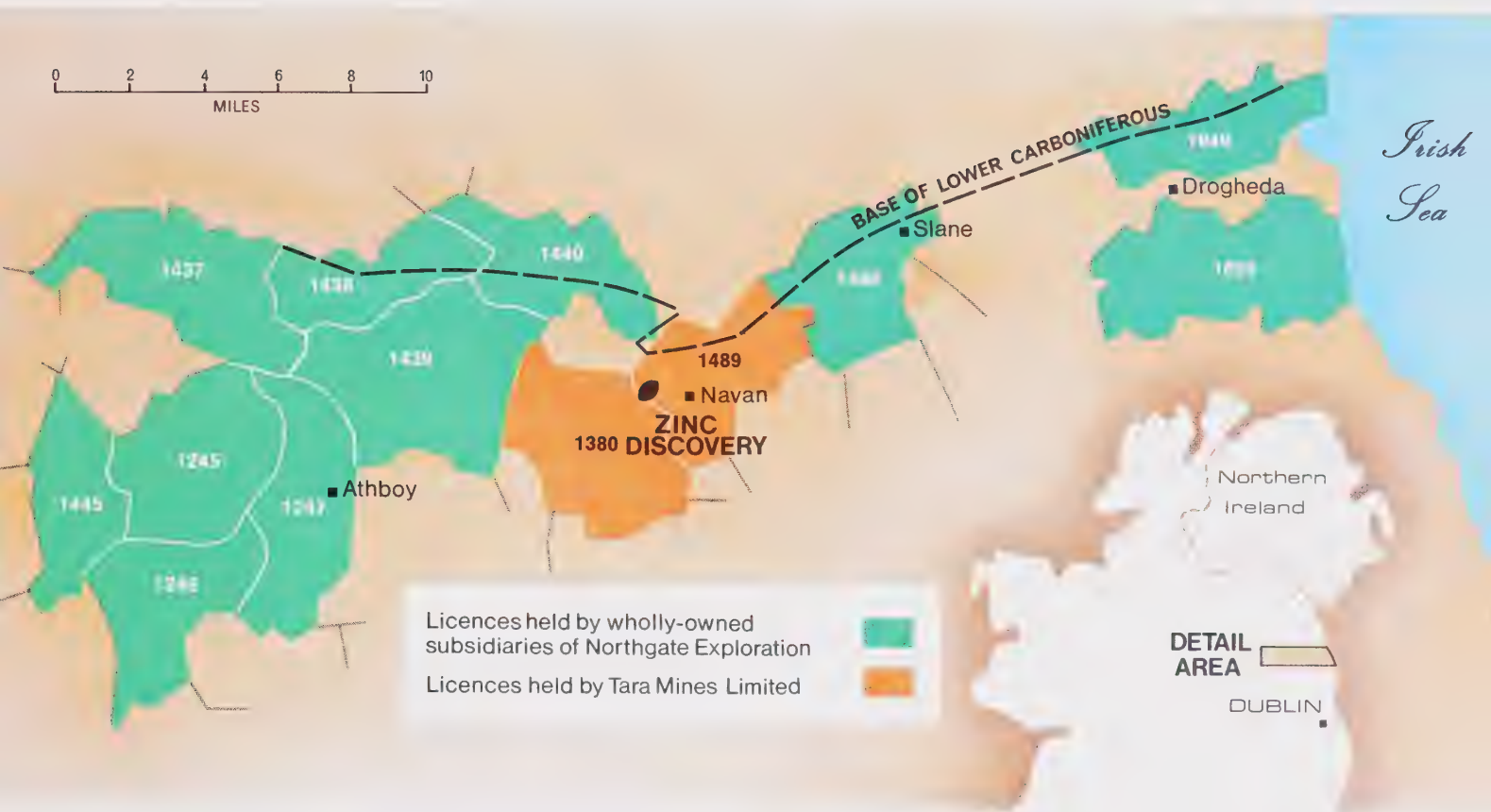
As noted in last year's Annual Report, the 1975 drilling at the Tatestown prospect indicated a possible 1.6 million tons grading close to 7% combined zinc and

lead, including a higher grade zone of approximately 330,000 tons grading in excess of 13% zinc and lead.

Clonabreany Prospect — A total of 30 drill holes were completed on this prospect which is located on the most westerly of the Navan block licences. A broad area of weak zinc-lead mineralization has been outlined in a geological environment similar to that at Tatestown. Barite is associated with this mineralization in several holes. Further diamond drilling will be carried out during 1977.

Kildare Prospect — Your Company is participating in the exploration of three licences in County Kildare. The general area in which these licences are located has been one of the most active areas for exploration in Ireland during 1976. Low grade zinc-lead mineralization over thicknesses in excess of 300 feet has been encountered in several holes and higher grade sections are present within these holes. Considerable follow-up work including diamond drilling will be required to further delineate the mineralized zones. Preliminary indications are that the general region is one of the more extensively mineralized areas of the Irish Carboniferous Limestone.

North County Galway — Geochemical and geophysical surveys in this area outlined three prospects warranting diamond drilling. In each of the three areas massive sulphide, in the form of pyrite was intersected, and is thought to be the main cause of the geophysical anomalies. In two of the areas, minor lead-zinc mineralization is associated with the pyrite. As the geophysical anomalies are much more extensive than the area drilled, further surveys involving power augering and drilling are planned for 1977.



NAVAN AREA, IRELAND — Map showing the prospecting licences of Northgate's subsidiaries in relation to the licences on which the major zinc-lead deposit was found by Tara Exploration and Development Company Limited late in 1970.

Ballyneale Prospect — Power augering on this licence, which is located in south County Kilkenny, located a strong geochemical anomaly which was subsequently tested by geophysical surveys and diamond drilling. The drilling encountered widespread base metal mineralization in a sequence of volcanic rocks which are thought to be similar in age to those that host the Avoca deposit. Drilling is planned for this area also during 1977.

Lithium Prospect — The main target on this prospect is spodumene-bearing pegmatites. Four areas of known spodumene occurrences were tested during 1976. The two principal areas were Aclare, where considerable drilling has been done in the past, and Moylisha. Drilling at Aclare extended the known mineralization. At Moylisha, spodumene was intersected over core lengths of 28 to 85 feet over a strike length of 400 feet. The other two areas gave disappointing results even though spodumene was intersected over narrow widths. Further drilling will be required. It should be noted that an

assay of 0.37 per cent Sn over 6.6 feet was encountered in the Aclare area. Tin (Sn) has been recorded in the area before, but this represents the first intersection of any consequence.

Tynagh Mine Lease — Exploration work in the Mine Lease area was concentrated on the eastern extension of the North Tynagh Fault. Diamond drilling was carried out with the object of locating the assumed position of the Fault more accurately and then testing the Reef Limestone horizon or its equivalents where they rest against the Fault.

continued

A total of 9,000 feet of drilling was completed but there were no intersections of economic grade material. Minor mineralization was found close to the Fault plane in some of the holes but generally speaking the Reef or Reef equivalent lithologies are not of the type in which the bulk of the Tynagh-type mineralization is normally found.

A general review of the remaining obvious exploration targets on the Tynagh Mine Lease and the adjacent prospecting licence to the west was carried out. It is estimated that an additional amount of 35,000 feet of drilling will be required to test the remaining exploration targets on the Tynagh Mine Lease and the adjoining prospecting licence to the west and this work is currently in progress.

Gortdrum Mine Lease — A total of 6,000 feet of diamond drilling was carried out on this Mine Lease during the year. The only significant mineralization found was in a Limestone wedge at the east end of the Gortdrum open pit. This mineralization is currently sub-economic and the chances of outlining any additional tonnage is precluded by the drilling further east which found no mineralization of consequence. At the north end of the Lease weak lead-zinc mineralization associated with an igneous dike has been located in drilling. The mineralization is situated on the boundary of the adjacent prospecting licence. Further work is planned here during 1977 to follow up an extensive IP geophysical anomaly in the vicinity. Trace uranium values were found in the Gortdrum mineralization during the year. This is to be followed up in conjunction with the Company's 1977 exploration programme.

As part of its reconnaissance exploration, your Company will undertake a search for uranium deposits in association with Tara Prospecting Limited, a wholly owned subsidiary of Tara Exploration and Development Company Limited. This aspect of the programme is partly funded by a grant of £44,000 Sterling (approximately \$75,000) from the Directorate General for Energy of the European Economic Community (EEC).

It is anticipated that 1977 will see the most active exploration programme carried out in the Republic of Ireland by your Company. Total diamond drill footage should be well in excess of that completed during 1976 with major emphasis in the areas mentioned in the foregoing comments.

CANADA

The joint venture exploration programme in the Maritime provinces of Newfoundland and Nova Scotia in which your Company has a 40% interest and the remaining 60% held by associated Westfield Minerals Limited was continued during 1976.

Newfoundland — Power augering of reconnaissance geochemical anomalies was carried out during the year. These anomalies were confirmed at depth but there was no substantial increase in the strength of anomaly. The anomalies are considered to reflect minor mineralization in the underlying Ship Cove Limestone and consequently testing by diamond drilling was not considered to be justified.

Extensive scintillometer surveys, soil sampling and stream geochemistry together with trenching were carried out in the search for uranium on most of the Reid Newfoundland Corporation

lots under option. Several areas of above background readings were outlined by the geochemical and geophysical surveys. The most important of these proved to be due to a 15-foot thick sandstone unit from which samples assayed up to 1.0 lb. U_3O_8 . During 1977 further examination of these anomalous areas will be carried out.

Nova Scotia — The reconnaissance exploration programme was maintained during the 1976 field season. A total of 2,747 feet of diamond drilling was completed to test seven anomalous areas in the Cobequid Mountains. Minor amounts of sulphide mineralization were intersected in the drilling and these are thought to be the sources of the anomalies.

During 1977 induced polarization surveys and diamond drilling are planned for areas at Parrsboro and Saunders Cove. Both these areas contain significant geochemical anomalies and weakly mineralized float.

Quebec — Your Company has acquired a total of 347 claims in the Johan-Beetz uranium area near the north shore of the Gulf of St. Lawrence, Quebec. The claims, which are held in two blocks, were acquired to cover known uranium occurrences in areas of high background radiometric readings. This project is being undertaken in a joint venture with associated Westfield Minerals Limited which has a 25% interest.

During October a helicopter-borne radiometric survey was conducted over most of the claims outlining several anomalous areas of radioactivity. A total of 160 line miles were flown. Subsequently, a limited programme of reconnaissance prospecting, geological mapping, ground scintillometer surveying and sampling was carried out prior to

the year end. This phase of the programme was concentrated in the areas of known showings.

More detailed work will be conducted during 1977 including line cutting, scintillometer surveying, radon probes of overburdened sections, together with rock trenching and bulk sampling of exposed mineralized zones. The latter will provide both quantitative assay information as well as crushed samples for metallurgical testing. Diamond drilling is also contemplated.

In addition to this joint venture undertaking with Westfield, your Company has recently entered into an exploration agreement with Noranda Mines Limited covering a group of 220 contiguous claims in the Johan-Beetz area. Your Company is participating to the extent of 49% with Noranda retaining 51%. A tentative budget for this joint venture with Noranda for 1977 is \$50,000 to be contributed in proportion to their respective interests.

The Johan-Beetz area was the scene of considerable prospecting during 1966-1968 and many companies acquired ground, some of which has been retained over the years. Several occurrences of uranium were discovered in pegmatite masses related to the granite. Interest in the area, which is regarded as having good potential for large tonnage, low grade uranium deposition, has heightened appreciably during the past year owing to the sharp increases in uranium prices and the forecast for higher prices in the future.

Taseko Lake Area, B.C. — Your Company has also recently acquired a 25% participating interest in a joint venture exploration programme in the Taseko Lake area, south central British Columbia, approximately 150 miles north of Vancouver and 80 miles southwest of Williams Lake. Bethlehem Copper Corporation is the operator of the

joint venture. The area selected for exploration encompasses a northwesterly trending block of ground in the eastern limits of the Coast Crystalline Belt.

The exploration possibilities are considered attractive in view of numerous mineral occurrences situated within and adjacent to the western portions of the block and within rocks flanking the batholith to the northwest and southeast of the project area. Some of the more prominent mineral districts situated along extensions of the Crystalline Belt contact zone include Stikine Copper, the Premier Camp, the Alice Arm molybdenum deposits, Huckleberry Mountain, Fish Lake and Poison Lake. The Fish Lake deposit, located in the central portion of the project area, is held by Quintana Minerals, and exploratory drilling done by that company is reported to have indicated several tens of millions of tons grading 0.3% copper and minor associated gold. Poison Mountain, about 15 miles southeast of the project area, was originally staked in 1935 and subsequently explored by a number of companies. Copper Giant Mining Corporation acquired the property in 1966 and optioned it to Homestake Mineral Development and Canadian Superior Exploration. Reserves are reported to be 175 million tons averaging 0.33% copper, 0.15% molybdenum along with associated low gold values.

Estimated expenditures for the 1977 field season will be in the order of \$135,000 of which Northgate will contribute 25%. Work scheduled includes reconnaissance geochemical sampling, detailed soil sampling, geological mapping and percussion drilling within selected areas.

ALASKA, U.S.A.

During 1976 your Company was involved in three joint venture exploration programmes in Alaska. The first consisted of a winter drilling programme off of the mouth of Daniels Creek to test a gold placer deposit and the other two involved extensive reconnaissance-type programmes for base metals and uranium in areas of the Seward Peninsula and Central Alaskan Range.

Daniels Creek — An Alaskan company, Westpark Exploration Company, was incorporated for this project which was funded equally by your Company and associated Westfield Minerals, each owning a 33% equity interest in Westpark. A total of 154 holes were drilled from the ice to test the seaward extension of the former Daniels Creek placer deposit. Based on a then prevailing approximate gold price of \$133 per ounce and using a fineness of 890, it was calculated that 1,325,000 cubic yards at \$2.88 per yard are present in the undersea portion of the channel up to a mile from shore. Additionally, a small area of the foreshore is estimated to contain 54,000 cubic yards at \$1.68 per cubic yard.

During the summer period a programme of churn drilling, pitting and trenching was carried out on shore to test the accuracy of the results of the winter programme. This work confirmed the earlier estimates but in view of the limited yardage and the high costs that would be involved in the extraction of this material, it was decided not to proceed with the option agreement and payments.

Seward Peninsula-Central Alaska — The joint venture exploration programmes in the Seward Peninsula and Central Alaskan Range areas originally contemplated varying degrees of participation by Northgate and associated Westfield Minerals, Anglo United Development Corporation and possibly other

continued

companies and/or interests. These participating interests were subsequently re-aligned with Anglo United's interest being acquired by Northgate at the contributing cost with the result that Northgate's participation increased to 60% and Westfield's reduced to 40%.

As a result of the season's field work, a total of 1,208 claims in 23 blocks were staked on the Seward Peninsula. The blocks were staked principally to cover geochemical anomalous results from the regional stream and soil geochemistry programme. In addition to the ground work, a total of 25,000 line kilometers of airborne radiometric surveys were completed. No first order anomalies resulted from this work and computer assessment of the results is now being undertaken.

Work as scheduled for the coming season in the following two areas of interest emerged from the regional programme:

- (1) **Quartz Creek** — Much of the ground field work during the season was concentrated in this area. Two zones of lead-zinc mineralization have been outlined and there are co-incident geochemical and geophysical anomalies. The southern part of the zone is 2 kilometers long by 200 to 400 meters wide and the northern zone is 2.5 kilometers long and probably of similar width. The areas have scope for a good deal of further work including diamond drilling.
- (2) **Monument Mountain-Kilawalik Mountain** — Anomalous geochemical values for copper, lead and zinc have been located over a length of 10 kilometers and a width of

several kilometers. The values are thought to overlie a zone of marbleized limestone which contains the nearby Independence lead-zinc deposit which is regarded as the best known deposit of its type on the Seward Peninsula. It is intended to concentrate further follow-up work in this area and exploration rights to the Independence deposit and related claims are being negotiated.

The programmes scheduled for the foregoing areas initially involved two separate joint ventures which were subsequently merged into one joint venture in which, as already mentioned, your Company has a 60% interest and associated Westfield Minerals Limited a 40% interest. It is expected that field work on this project will recommence in April-May 1977.

Independence Deposit — This property, also known as the "Rhiney Berg", is the subject of current negotiations by Northgate, the terms of which are designed to enable your Company to earn a 50% interest by the expenditure of \$300,000 by 1980 and thereafter an increasing interest up to 85% if the other participants elect not to contribute to expenditures. The designated minimum commitment is for the expenditure of \$60,000 during 1977.

The Independence property consists of 45 claims covering an approximate area of two square miles. It has been extensively explored under various ownerships for many years. The principal exploration target is a high grade lead-zinc-silver-gold vein striking roughly north-south. Work to date includes prospecting, bulldozer trenching, limited geophysical surveying, exploratory drifting and diamond drilling, the latter apparently confined to comparatively shallow holes to a maximum of 275 feet.

A tunnel has been drifted along the vein for a length of some 300 feet and assay values indicate a range of 5 to 10% lead, 2 to 7% zinc plus significant silver and gold values.

Bulldozer trenching indicates, in the work completed to date, that the vein exists over a length in excess of 300 feet with average widths of from 5 to 9 feet but some sections as wide as 20 feet. There are also numerous trenches some 3,000 feet south of the adit on the apparent line of strike of the vein.

Subject to the satisfactory conclusion of current negotiations, your Company contemplates a programme of exploration for the 1977 field season to include detailed geophysical surveys covering an area of approximately 12,000 feet by 5,000 feet together with detailed geochemical sampling and based on the results of this work, a programme of surface diamond drilling. The cost of such a programme would likely exceed the minimum commitment of \$60,000 for this year.

ISLE OF MAN

Your Company is participating in an exploration programme for lead-zinc and copper deposits in the Isle of Man. The area under investigation contains rocks of similar age to those which host the important zinc-lead deposit in Navan, Republic of Ireland. Surface expressions of lead-zinc mineralization are known in the area and exploration is being carried out under an exploration licence covering approximately 26 square kilometers which was issued to Carrick Exploration Limited by the Isle of Man Forestry, Mines and Land Board.

Southern Exploration Supplies Limited (an Isle of Man company which is funded and owned 50% by Northgate, 40% by Whim Creek Consolidated N.L. and 10% by

Anglo United Development Corporation Limited) provides technical management for the project and holds a 67.5% interest in Carrick Exploration. Early results from the soil sampling programme indicate a strong geochemical anomaly in an area of recently discovered lead-zinc mineralization.

To date, three holes have been completed on one section spaced about 160 feet apart at an angle of 45° west. The first hole encountered 127 feet of

overburden and was completed at 261 feet in limestone in which no mineral was encountered. However, sludge samples from 80 to 120 feet returned lead-zinc values of 1% combined with minor copper. Hole No. 2 encountered 51 feet of overburden and was completed at 276 feet in barren limestone. Hole No. 3 encountered 36 feet of overburden and was completed at 270 feet. Minor mineralization is present from 80 to 220 feet in three principal zones: 108-112 feet, 130-170 feet and 190-220 feet. Diamond drilling is continuing.

GENERAL

Your Company's tentative exploration budget for 1977 is \$2.2 million which reflects both the tempo and scope of its activities in this vital function of a progressive mining organization. This sum represents the Company's wholly owned exploration projects and its proportionate contribution to the various joint venture undertakings.

ASSOCIATED COMPANIES AND PRINCIPAL INVESTMENT HOLDINGS

ANGLO UNITED DEVELOPMENT CORPORATION LIMITED (Northgate Interest — Direct 24%)

The major emphasis of exploration activity in the 1975-1976 fiscal year was in connection with the group of prospecting licences in the Republic of Ireland under a joint venture agreement between the company's wholly owned Irish subsidiary, Munster Base Metals Limited, Societe Miniere et Metallurgique de Penarroya ("Penarroya") and Preussag Aktiengesellschaft Metall ("Preussag").

Exploration activities with respect to the foregoing prospecting licences consisted principally of prospecting, geological mapping, geophysical and geochemical surveying. In addition, diamond drilling was carried out on certain licence groups. The company's contribution to exploration expenditures during the year amounted to \$57,273. Cumulative expenditures to the 1976 fiscal year end in connection with this joint venture agreement (as amended) total \$877,822.

Work is continuing on certain of these licences with particular emphasis on the Mallow and Wexford areas. The Mallow area licence group includes the known Tullacondra copper-silver deposit where earlier drilling indicated the possibility of an occurrence of about 4 million tons of mineralized material grading about 0.69% copper and 0.86 ounce of silver per ton. The Wexford area licence group encompasses the known mineralized areas at Duncormick which was diamond drilled in 1972 obtaining significant mineralization at depths up to 750 feet.

Other interests in Ireland include a participation in a group of licences in the Connemara area where investigations have indicated scheelite (tungsten) occurrences, and its wholly owned Clontibret licence which is being evaluated for its antimony-gold possibilities.

Anglo United is also participating with other associated companies of the Northgate Group in an exploration programme for lead-zinc and copper deposits in the Isle of Man. This joint venture

exploration is being carried under a licence issued to Carrick Exploration Limited by the Isle of Man Forestry, Mines and Land Board. Southern Exploration Limited, in which Anglo United has a 10% interest, holds a 67.5% interest in Carrick Exploration. Drilling is currently in progress on this project. Reference is made to the details of this project set out in the exploration section of the Northgate Annual Report on pages 16 and 17.

The company's principal interest in Canada is the Camp Lake gold property consisting of 20 claims or approximately 1,000 acres located in the Yellowknife area, Northwest Territories, which is held under a 21-year mining lease.

The decision to consider the implementation of the recommended underground programme to further investigate this gold deposit has been deferred owing to certain considerations, principally an improvement in the price of gold to an acceptable and sustained level to facilitate the necessary funding.

continued



This view of the Black Angel Mines in West Greenland of Greenex A/S, the wholly owned subsidiary of Vestgron Mines Limited, shows the concentrate storage building at the left and the conveyorway to the shiploader.

Anglo United's working capital at October 31, 1976 amounted to \$374,890. This is exclusive of investments consisting of 246,333 shares (3.6%) of Northgate held by Anglo United and its wholly owned investment subsidiary.

At December 31, 1976 Northgate's interest in Anglo United was 1,689,500 shares equal to approximately 24% of the issued and outstanding capital.

**WESTFIELD MINERALS LIMITED
(Northgate Interest — Direct 45%)**

Both directly, and indirectly through associated and other companies, Westfield has widespread exploration interests

in Canada, State of Alaska, U.S.A., Australia and the Republic of Ireland. In addition, through its substantial shareholdings in Vestgron Mines Limited and Northgate, Westfield is participating in base metal mining operations in Western Greenland and Ireland.

As previously reported, during 1975 Westfield sold its Coniaurum Property and related surface rights to Pamour Porcupine Mines, Limited for \$255,000 cash. As part of the sale agreement, Westfield is entitled to a 25% net profit carried interest on all production from the

mining rights during the term of the agreement which extends to December 31, 2024. No income was earned under this agreement in 1976.

General Exploration

In addition to its widespread exposure to exploration through affiliated and other companies, Westfield is active on its own account and in joint venture programmes with other companies, notably with Northgate. With respect to the joint venture with Northgate in the Maritimes provinces of Nova Scotia and Newfoundland, this essentially reconnaissance-type

programme which commenced in 1974 is being continued, although latterly on a reduced scale. Westfield has a 60% participating interest in this programme.

Westfield also participated in the offshore and onshore exploration programme involving gold placer prospects at Daniels Creek, near Nome, Alaska. An Alaskan company, Westpark Exploration Company, was incorporated for this project and was funded equally by Westfield and Northgate, each owning a 33% equity interest in Westpark.

Westfield is also participating in extensive reconnaissance-type programmes for base metals and uranium in areas of the Seward Peninsula and Central Alaskan Range, State of Alaska, U.S.A.

Reference is made to the details of these two joint venture projects set out in the exploration section of the Northgate Annual Report on pages 15 and 16.

Investments

Westfield's principal investments consist of the following:

Northgate Exploration Limited
— 936,619 shares Direct Interest 13.6%

Vestgron Mines Limited —
414,500 shares Direct Interest 9.8%
Indirect Interest 0.7%

Whim Creek Consolidated N.L.
— 2,500,000 shares Direct Interest 22.5% Indirect Interest 3.1%

The quoted market value of these investments as at December 31, 1976 was approximately \$13 million.

Reference is made to the appended corporate profile for current information regarding Whim Creek Consolidated and Vestgron Mines Limited.

Financial

Westfield's working capital at December 31, 1976 was \$575,385 which compares with \$1,329,336. The decrease in working capital

during the year is substantially attributed to increased exploration expenditures during the year totalling \$375,014 (\$125,635 in 1975) and \$351,397 in exploration advances to an associated company (Westpark).

Consolidated net loss for the year amounted to \$418,440 which compares with a profit in 1975 of \$324,286. The principal item contributing to the loss during the year was the write-off of exploration advances to an associated company (Westpark). Other exploration expenditures have been deferred in accordance with the Company's accounting policies.

At December 31, 1976, Northgate's interest in Westfield Minerals Limited was 2,803,075 shares equal to approximately 45% of the issued and outstanding capital.

WHIM CREEK CONSOLIDATED N.L.

(Northgate Interest — Direct 31.5%)
— Indirect 10.1%)

Whim Creek is active, on its own account and in conjunction with other companies, in exploration for commercial mining properties, principally in the West Pilbara region of Western Australia in the vicinity of Roebourne, and in New South Wales in the eastern half of Australia.

At December 31, 1976 the property holdings of Whim Creek Consolidated and its subsidiaries cover a combined approximate area of 18,887 hectares.

Mining Operations

During the year, the company mined by open pit a small deposit of high grade copper (Whundo) yielding approximately 6,200 tons of direct shipping ore grading an estimated 27% copper or a contained equivalent of approximately 3.3 million pounds of copper. An offer of purchase, based on shipping in March-April 1977, has been accepted.

This operation has been very successful but the exact profit to be realized cannot be determined until the time of shipment when accurate tonnages can be measured and ocean freight costs established.

This mining operation at Whundo also provided bulk samples of low and medium grade copper mineralization and metallurgical tests of this material have given results suggesting that the 48,000 tons of 7.4% copper at West Whundo might be mined and upgraded into a profitable operation. Studies on the feasibility of such an operation are now in progress.

Improved levels of copper prices prevailing during most of 1976 — and with a continuing uptrend in early 1977 — provide a more favourable outlook for commencing a full scale operation on the Whim Creek Mine copper deposit. An investigation into the economics of extracting copper from leach solutions by the more modern technique of solvent extraction electrowinning, is in progress.

There are reserves of about 50,000 tons of oxide mineralization grading 3.25% copper present at surface at the Whim Creek Mine. The company is examining the possibilities of using this mineralization to start a small pilot scale leaching operation. Such an operation would provide valuable information relevant to a full scale operation at the Whim Creek Mine.

Previously reported reserves extractable by open pit and considered suitable for heap leaching were calculated at 1,600,000 metric tonnes of oxide ore grading an average of 1.63% copper using a cut-off grade of 0.3%.

Whim Creek was also active in the investigation of gold properties amenable to heap leaching technology and in this connection

continued

has entered into a joint venture agreement involving a group of properties at Meekatharra where drill-indicated reserves are estimated at 1.8 million tons grading 3.9 grams gold (0.129 oz.) per ton.

These reserves occur within 50 meters (about 160 feet) of the surface and the deposits would appear to be suitable for mining by open pit methods with an acceptable waste to ore ratio. Following encouraging results from laboratory scale tests, a small pilot plant was erected to treat a 300 ton heap by leaching. The tests are due for completion during March 1977.

A decision will be taken then on whether to proceed to leaching of significantly larger heaps. By the expenditure of funds on testwork on the properties, the joint venture partners have a right to jointly earn a 50% interest in the Meekatharra properties and Whim Creek's interest would be 25%.

In furtherance of these investigations into heap leaching technology in the treatment of low grade ores, Whim Creek has continued its own vigorous programme of exploration for properties considered prospective for large tonnages of low grade mineralization. In this connection, the company has entered into an option to purchase a property consisting of seven gold mining leases on the East Coolgardie Goldfield.

Whim Creek, is also active in uranium exploration and during the year has taken out a temporary reserve of 200 square kilometers to cover an area considered prospective for sedimentary uranium. This property is located between the site of the Whim Creek Mine and Port Hedland.

At December 31, 1976 Whim Creek's working capital amounted to Aust. \$1,083,983 compared with Aust. \$1,173,451 at the 1975 year end. The stockpile of copper concentrate (the 6,200 tons at 27% grade) is taken into account at its cost of approximately Aust. \$630,000 which is below the estimated future realizable value.

At December 31, 1976, Northgate's interest in Whim Creek Consolidated N.L. was 3,500,000 shares equal to approximately 31.5% of the issued and outstanding capital.

TARA EXPLORATION AND DEVELOPMENT COMPANY LIMITED

(Northgate Interest — Direct 10%)

Senior financing arrangements for the \$150 million project involving the large zinc-lead mine at Navan, Ireland, were completed in May, 1976. Commencement of production of the 7,500 ton per day mine and concentrator is currently scheduled for April, 1977.

This major zinc-lead deposit which was discovered in 1970, is being developed and operated by Tara Mines Limited, the 75% owned subsidiary of Tara Exploration and Development Company Limited. When in full production, the Tara Mine with a designed annual output of 500,000 short tons of concentrates, will be Europe's largest zinc producer and ranking among the major zinc-lead mines in the world.

Financing for the Navan Mine project included bank loans totalling U.S.\$100 million and U.S.\$30 million provided under a loan agreement with the Canadian federal government's Export Development Corporation. The balance of the funds, totalling \$20 million and consisting of equity funds and subordinated loans, was previously supplied by the parent company.

The U.S. \$100 million portion of the senior financing was arranged by The Toronto-Dominion Bank and three Irish banks, Allied Irish Investment Bank, Bank of Ireland, and the Ulster Investment Bank.

In addition, Toronto-Dominion Bank Investments (U.K.) Limited (a wholly owned subsidiary of The Toronto-Dominion Bank), City Bank N.A., The First National Bank of Chicago, the Bank of Nova Scotia, Commerce International Trust (a wholly owned subsidiary of Canadian Imperial Bank of Commerce) and Banque Canadienne Nationale (Europe) participated in the consortium.

The mine is expected to provide approximately 2.5 million tons of ore annually during the 25 year term of the lease which has provisions for renewal beyond that term. Forecast metallurgical recoveries for zinc and lead are 90% and 82%, respectively. The zinc concentrate is expected to grade 56% zinc and the lead concentrate 62% lead.

Zinc and lead concentrates will be shipped to several European smelting firms under sales contracts which provide for a diversion of zinc concentrate to an Irish refinery when such a facility is established. The Navan Mine which provides a long term and large tonnage sources of zinc in close proximity to the European market is an obvious economic advantage. European mine zinc production historically falls well short of consumption.

The approximate respective equity ownerships of the four principal corporate shareholders are Charter Consolidated 10.75%, Cominco Ltd. 17.43%, Noranda

Mines Limited 19.93% and Northgate Exploration Limited 9.97%.

Northgate's shareholding in Tara Exploration and Development Company Limited totals 643,741 shares.

VESTGRON MINES LIMITED
(Northgate Interest — Direct 5.2%)
Indirect 4.4%)

Vestgron Mines Limited, 62.5% owned by Cominco Ltd., reported net earnings for 1976 of \$15,572,000 equal to \$3.68 per share against \$15,829,000 or \$3.74 per share in 1975. Earnings before interest charges, depreciation and depletion in 1976 were \$22,977,000.

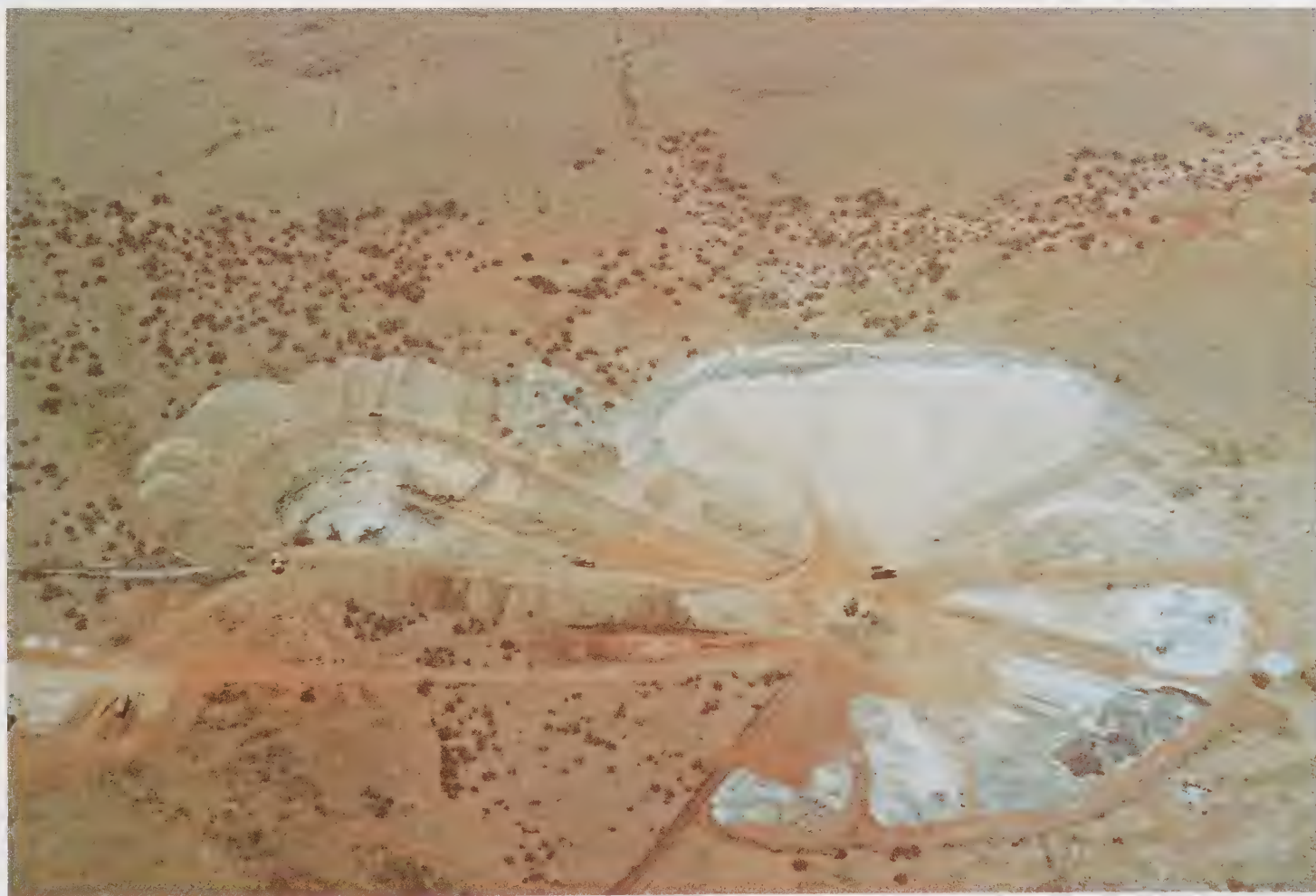
Earnings are obtained from the mining operations at the Black Angel Mine of the company's wholly owned Danish subsidiary, Greenex A/S, Western Greenland. Revenue in 1976 of \$49,234,000 was from the sale of 172,962 metric tons of zinc concentrates and 34,042 metric tons of lead concentrates. Concentrate production in 1976 amounted to 142,798 metric tons of zinc concentrate and 37,886 metric tons of lead concentrate from the treatment of 601,774 metric tons of ore grading 14.7% zinc and 5.2% lead.

Vestgron reported that despite the higher prices for lead concentrate and greater volume of zinc concentrate sales, earnings were somewhat lower in 1976 than in 1975 due to the lower revenue realized per ton of zinc concentrate.

Reported ore reserves at December 31, 1976 were 3,571,751 metric tons assaying 13.9% zinc, 4.9% lead and 26 grams (approx. 0.84 ounce) silver per ton.

Northgate's direct shareholding in Vestgron Mines Limited totals 220,000 shares. The combined direct and indirect ownership approximates 406,525 shares.

Whim Creek Consolidated's Whundo Open Pit, near Karatha, Western Australia. A modest tonnage of direct shipping ore was mined during 1976.



Northgate Exploration Limited

(Incorporated under the laws of Ontario)

Consolidated Balance Sheet as at December 31, 1976 and 1975

Expressed in Canadian dollars

ASSETS

Current Assets

Cash including short-term securities, deposits and accrued interest
Smelter settlements outstanding at estimated net realizable value
Concentrates and metal on hand at estimated net realizable value
Supplies at cost
Accounts receivable and prepaid expenses

Investments in Associated and Other Companies

Associated companies

Shares(note 2)

Advances

Marketable securities (quoted market value, 1976, \$12,999,000; 1975, \$15,503,000) (note 3)

Other shares and advances at cost less amounts written off

Less provision for decline in value

Fixed Assets

Buildings, machinery and equipment at cost

Land in Ireland at cost

Mining claims in Canada at nominal value

Less accumulated depreciation

Other Assets and Deferred Charges

Cash deposited as collateral for guarantee (note 6)

Development expenditures at cost, less amortization

Other deferred charges

LIABILITIES AND SHAREHOLDERS' EQUITY

Current Liabilities

Bank advances

Accounts payable and accrued liabilities

Government royalty payable

Income taxes payable (note 4)

Future and Deferred Income Taxes (note 4)

Shareholders' Equity

Capital stock (note 5)

Authorized — 10,000,000 shares of \$1 each

Issued — 6,891,699 shares

Contributed Surplus

Retained earnings

Approved by the Board

See accompanying notes

M. K. PICKARD, Director

W. F. JAMES, Director

Auditors' Report

To the Shareholders of
Northgate Exploration Limited

We have examined the consolidated balance sheet of Northgate Exploration Limited as at December 31, 1976 and 1975 and the consolidated statements of income, retained earnings and changes in financial position for the years then ended. Our examination of the financial statements of Northgate Exploration Limited was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances. With respect to the subsidiary companies of which we are not the auditors, we have carried out such enquiries and examination as we considered necessary in order to rely for purposes of consolidation on the reports of their auditors.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at December 31, 1976 and 1975 and the results of its operations and the changes in its financial position for the years then ended in accordance with generally accepted accounting principles applied, after giving retroactive effect to the change in accounting for foreign currency translation referred to in note 7, on a consistent basis.

Thorne Riddell & Co.
Chartered Accountants

Toronto, Canada
February 9, 1977

1976	1975
\$27,865,000	\$16,386,000
2,368,000	4,552,000
1,625,000	1,845,000
511,000	940,000
463,000	438,000
<u>32,832,000</u>	<u>24,161,000</u>
5,222,000	6,021,000
	424,000
12,972,000	17,306,000
	11,000
<u>18,194,000</u>	<u>23,762,000</u>
	1,490,000
<u>18,194,000</u>	<u>22,272,000</u>
15,319,000	14,999,000
661,000	661,000
1,000	1,000
<u>15,981,000</u>	<u>15,661,000</u>
11,741,000	9,946,000
<u>4,240,000</u>	<u>5,715,000</u>
	2,794,000
1,354,000	2,110,000
28,000	34,000
<u>1,382,000</u>	<u>4,938,000</u>
<u>\$56,648,000</u>	<u>\$57,086,000</u>
1976	1975
\$ 474,000	\$ 309,000
3,345,000	3,052,000
599,000	805,000
<u>1,620,000</u>	<u>1,910,000</u>
6,038,000	6,076,000
<u>1,831,000</u>	<u>1,633,000</u>
6,892,000	6,892,000
6,849,000	6,849,000
<u>35,038,000</u>	<u>35,636,000</u>
48,779,000	49,377,000
<u>\$56,648,000</u>	<u>\$57,086,000</u>

Northgate Exploration Limited

Consolidated Statement of Income

YEARS ENDED DECEMBER 31, 1976 and 1975

Expressed in Canadian dollars

Revenue	1976	1975
Metals	\$19,438,000	\$33,798,000
Deduct shipping, smelting and marketing expenses	7,755,000	13,380,000
	<u>11,683,000</u>	<u>20,418,000</u>
 Operating expenses		
Operating expenses other than items set out below	7,274,000	15,026,000
Administrative and general expenses	1,630,000	1,348,000
Government royalty	190,000	19,000
Depreciation	1,806,000	2,357,000
Amortization of development expenditures	756,000	998,000
	<u>11,656,000</u>	<u>19,748,000</u>
	27,000	670,000
Profit on disposal of fixed assets	<u>44,000</u>	<u>584,000</u>
	71,000	1,254,000
Exploration	<u>1,502,000</u>	<u>1,034,000</u>
	(1,431,000)	220,000
Share of losses of associated companies (note 2)	(885,000)	(279,000)
Interest, dividends and sundry income	2,391,000	1,594,000
Exchange gains	315,000	541,000
Provision for decline in value of investments	<u>(48,000)</u>	<u>(240,000)</u>
Income before income taxes	342,000	1,836,000
Income taxes (note 4)	<u>940,000</u>	<u>341,000</u>
Net Income (Loss)	<u>\$ (598,000)</u>	<u>\$ 1,495,000</u>
 Earnings (loss) per share	 \$(0.09)	 \$0.22

Consolidated Statement of Retained Earnings

YEARS ENDED DECEMBER 31, 1976 and 1975

Expressed in Canadian dollars

	1976	1975
Balance at Beginning of Year		
As previously reported	\$35,297,000	\$35,864,000
Adjustment of prior year (note 7)	339,000	
As restated	35,636,000	35,864,000
Net income (loss)	(598,000)	1,495,000
Dividend paid — (1975, U.S. 25¢ per share)		(1,723,000)
Balance at End of Year	<u>\$35,038,000</u>	<u>\$35,636,000</u>

Consolidated Statement of Changes in Financial Position

YEARS ENDED DECEMBER 31, 1976 and 1975

Expressed in Canadian dollars

	1976	1975
Working capital derived from		
Operations	\$ 3,095,000	\$ 3,737,000
Release of cash previously deposited as collateral for guarantee (note 6)	2,794,000	
Disposal of investments	3,632,000	
Disposal of fixed assets	124,000	402,000
Other items	6,000	273,000
	<u>9,651,000</u>	<u>4,412,000</u>
Working capital applied to		
Investments	487,000	670,000
Additions to fixed assets	455,000	372,000
Dividends		1,723,000
Cash deposited as collateral for guarantee (note 6)		70,000
	<u>942,000</u>	<u>2,835,000</u>
Increase in working capital	<u>8,709,000</u>	<u>1,577,000</u>
Working capital at beginning of year		
As previously reported	\$17,867,000	\$16,508,000
Adjustment of prior year (note 7)	218,000	
As restated	18,085,000	16,508,000
Working capital at end of year	<u>\$26,794,000</u>	<u>\$18,085,000</u>

Notes to Consolidated Financial Statements

YEARS ENDED DECEMBER 31, 1976 and 1975

Expressed in Canadian dollars

1. Summary of Significant Accounting Policies

(a) Principles of consolidation

- (i) The consolidated financial statements include the accounts of all wholly-owned subsidiary companies. The more significant subsidiaries are:

Irish Base Metals Limited
Gortdrum Mines (Ireland) Limited.

- (ii) The company accounts for its investment in associated companies on the equity basis. Under the equity basis, the company's equity in the net earnings or loss of associated companies is reflected in the consolidated statement of income and adjustment is made to the value at which the investment is carried in the consolidated balance sheet (note 2).

(b) Currency translation

At March 31, 1976, the company adopted with retroactive effect, the following policies with respect to the translation of currency balances other than in Canadian dollars:

- (i) Fixed assets, deferred charges, the related depreciation, amortization and deferred income taxes, supplies and investments, at historical rates.
- (ii) All other assets and liabilities, at period end rates.

- (iii) Revenue and expense transactions other than depreciation and amortization, at the average rate of exchange prevailing during the year.

(c) Marketable securities

The company's investments in marketable securities are carried at cost less a provision for any permanent decline in value. In 1976, the provision for decline in value was applied against the carrying value of specific investments.

(d) Depreciation and amortization

Depreciation of fixed assets has been recorded at various rates so as to charge the cost to income over the shorter of the expected useful lives of the assets or the life of the estimated ore reserves.

Development expenditures are being amortized over the estimated life of the mine.

(e) Exploration

The company and consolidated subsidiaries charge exploration expenditures to income in the period in which incurred. Non-producing associated mining companies defer exploration and administrative expenditures as set out in note 2.

2. Associated Companies

The investment in shares of associated companies is carried on the equity basis:

	1976		1975	
	% of shares outstanding	Carrying value	% of shares outstanding	Carrying value
Westfield Minerals Limited	45%	\$3,272,000	45%	\$3,540,000
Whim Creek Consolidated N.L.	32%	939,000	32%	1,144,000
Anglo United Development Corporation Limited .	24%	1,010,000	24%	1,024,000
Smelter Corporation of Ireland Limited	70%	1,000	70%	313,000
		<u>\$5,222,000</u>		<u>\$6,021,000</u>

The company's equity in the underlying net tangible assets of associated companies is reconciled to the carrying value of the investment on the equity basis, as follows:

	1976	1975
Equity in underlying net tangible assets	\$2,126,000	\$2,738,000
Equity in underlying deferred exploration and administrative expenditures	1,531,000	1,718,000
Excess of cost of investment over underlying net book values at dates of acquisition — attributed to mineral interests	1,565,000	1,565,000
Carrying value on equity basis	<u>\$5,222,000</u>	<u>\$6,021,000</u>

The company's share of losses of associated companies since acquisition is \$1,266,000 (\$381,000 at December 31, 1975).

The associated companies in the mineral exploration business defer exploration and certain administrative expenditures, with the intention that they will be amortized by charges against income from future mining operations or written off at the time a project is abandoned. The company will also amortize, by charges against its interest in such income, the excess of cost of investment over underlying net book value at dates of acquisition. The recovery of these costs from operations is dependent, therefore, upon the discovery of sufficient ore and the development by the associated companies of economic mining operations.

The quoted market value of the shares in Westfield Minerals, Whim Creek and Anglo United Development amounted to \$8,679,000 at December 31, 1976, and \$6,673,000 at December 31, 1975. However, because of the number of shares held, the quoted market value is not necessarily indicative of their realizable value. Smelter Corporation of Ireland Limited is a private company with no quoted market value for its shares.

3. Marketable Securities

Marketable securities include an investment in 643,741 shares (December 31, 1975 — 638,341 shares) of Tara Exploration and Development Company Limited, carried in the accounts at a cost of \$9,410,000 (December 31, 1975 — \$9,324,000) representing 9.9% of the shares outstanding at December 31, 1976 and at December 31, 1975. The quoted market value of \$9,733,000 at December 31, 1976 (\$9,256,000 at December 31, 1975) is not necessarily indicative of realizable value because of the number of shares held.

Tara Mines Limited, a subsidiary of Tara Exploration and Development Company Limited, completed the

senior financing arrangements for the development of its zinc/lead mine at Navan, Co. Meath, Ireland in May 1976. The mine is expected to commence operations in early 1977.

4. Income Taxes

The provision for income taxes comprises the following:

	1976	1975
Current and future	\$1,135,000	\$ 655,000
Deferred	(195,000)	(314,000)
	<u>\$ 940,000</u>	<u>\$ 341,000</u>

Deferred income taxes relate to the following timing differences:

	1976	1975
Depreciation and amortization .	\$ 63,000	\$ (256,000)
Costs charged to expense in accounts but not deductible until paid (net)	(258,000)	(58,000)
	<u>\$ (195,000)</u>	<u>\$ (314,000)</u>

The income tax expense for 1976 is 227% greater (1975 — 30% less) than the statutory Canadian income tax rate. The reasons for this difference are as follows:

	Percentage of Pre-tax Income	
	1976	1975
	(restated)	
Canadian statutory rate	48	49
Items not deductible for tax purposes:		
Share of losses of associated companies	124	8
Foreign exploration expenditures .	53	
Provision for decline in value of investments	7	6
Non-taxable gain on sale of investments	(16)	
Foreign income subject to foreign income tax but not subject to Canadian income tax	(35)	(54)
Tax effect of foreign currency translations including the effect of translating depreciation and amortization relating to foreign operations at historical rates and other income and expense items at the average rate for the year	94	10
	<u>227</u>	<u>(30)</u>
Income tax expense	<u>275</u>	<u>19</u>

1975 figures have been restated to reflect the effect of the retroactive adjustment explained in note 7 and the reclassification of reconciling items to conform with the presentation adopted in 1976.

The future and deferred income tax balances comprise the following:

	December 31, 1976	December 31, 1975 (restated)
Income taxes payable in the first quarter of 1978 (1975 — first quarter of 1977)	\$1,137,000	\$ 744,000
Income taxes deferred because of timing differences in the recognition of certain expenses for tax and financial statement purposes	694,000	889,000
	<u>\$1,831,000</u>	<u>\$1,633,000</u>

Based upon currently anticipated expenditures and operations, it is expected that the deferred income tax balance at December 31, 1976 of \$694,000 will be reduced by approximately \$230,000 in each of the years 1977, 1978 and 1979.

5. Capital Stock

Stock Option Plan

Pursuant to the Officers' and Employees' Stock Option Plan, options may be granted until June 3, 1979 on up to 300,000 shares of the company's capital stock at prices not less than 90% of the closing price for the company's shares on the Toronto Stock Exchange on the dates the options are granted.

No options were outstanding at December 31, 1976 and no options were exercised during the year ended on that date.

6. Guarantees

Tara Mines Limited completed its senior financing arrangements in May 1976 and, as a result, the company was released from the guarantee of U.S. \$2,500,000, given in connection with Tara's interim financing arrangements. Tara's senior financing arrangements include an overrun facility of U.S. \$15,000,000, of which the company has guaranteed the principal amount of U.S. \$2,400,000, together with the interest thereon.

7. Prior Period Adjustment

As at March 31, 1976, the company adopted, with retroactive effect, a policy of translating currency balances other than in Canadian dollars in accordance with the Financial Accounting Standards Board Statement No. 8. Smelter settlements, concentrates and metals on hand, previously translated at rates estimated at time of settlement, are now translated at period end rates. Supplies previously

translated at period end rates are now translated at historical rates and the liability for future income taxes, previously translated at historical rates, is now translated at period end rates. This change had no material effect on earnings or retained earnings prior to 1975. The effect on the year 1975 was to increase net income from that previously reported by \$339,000 (\$0.05 per share).

8. Anti-Inflation Act (Canada)

The company is subject to the provisions of the Anti-Inflation Act only in relation to the restraint of dividends. Under the provisions of this legislation, the maximum dividend rate allowable in the twelve months ending October 13, 1977 is U.S. \$0.70 per share. The company, however, has no regular dividend policy.

9. Selected Quarterly Financial Data (Unaudited)

Listed below are financial data for each quarter in the year ended December 31, 1976 (in '\$'000s except per share data):

	Three months ended			
	March 31, 1976	June 30, 1976	September 30, 1976	December 31, 1976
Net revenue from metals	\$2,464	\$3,646	\$2,952	\$2,621
Operating income (loss)				
Originally reported	(327)	750	(52)	(344)
Subsequent adjustment		(108)	108	
Restated	(327)	642	56	(344)
Net income (loss)	<u>\$ 86</u>	<u>\$ 234</u>	<u>\$ (307)</u>	<u>\$ (611)</u>
Earnings (loss) per share	<u>\$ 0.01</u>	<u>\$ 0.04</u>	<u>\$ (0.05)</u>	<u>\$ (0.09)</u>

During the second quarter, the company inadvertently credited exchange gains of \$108,000 to operating expenses instead of crediting other income. This was adjusted during the third quarter by charging operating expenses and crediting other income by this amount. As a result, the operating income originally reported for the second quarter was overstated by \$108,000 and the operating loss for the third quarter was overstated by the same amount.

10. Other Statutory Information

Remuneration of the company's directors and senior officers (as defined by The Business Corporations Act of Ontario) amounted to \$495,000 for 1976 and \$455,000 for 1975.

Summary of 1976 Results by Quarters

(expressed in thousands of Canadian dollars)

		Three Months Ended			Total
	March 31	* June 30	* Sept.30	Dec. 31	1976
Gross selling value of metal and metal concentrates	\$ 4,567	\$ 5,705	\$ 4,879	\$ 4,287	\$19,438
Deduct shipping, smelting and marketing expenses	2,103	2,059	1,927	1,666	7,755
	2,464	3,646	2,952	2,621	11,683
Operating and administrative costs (including royalty)	2,197	2,395	2,301	2,201	9,094
Operating profit before the undernoted	267	1,251	651	420	2,589
Depreciation and amortization	594	609	595	764	2,562
Operating profit (loss)	(327)	642	56	(344)	27
Profit on disposal of fixed assets	—	—	—	44	44
	(327)	642	56	(300)	71
Exploration	167	438	366	531	1,502
	(494)	204	(310)	(831)	(1,431)
Non-operating revenues:					
Equity in income (loss) of associated companies	—	(87)	(548)	(250)	(885)
Interest, dividends and sundry income	603	528	649	611	2,391
Exchange gains (losses)	(23)	300	278	(240)	315
Provision for decline in value of investments	—	—	(48)	—	(48)
Income before taxation	86	945	21	(710)	342
Taxation (charge) credit	—	(711)	(328)	99	(940)
Net income	86	234	(307)	(611)	(598)
Earnings per share	\$ 0.01	\$ 0.04	\$ (0.05)	\$ (0.09)	\$ (0.09)

NOTE: *Reflects reclassification as described in note 9 of the financial statements.

MANAGEMENT ANALYSIS OF THE RESULTS OF OPERATIONS YEAR ENDED DECEMBER 31, 1976 YEAR ENDED DECEMBER 31, 1975 (RESTATED)

1976/75:

Revenue from metals for the year 1976 declined by \$8,735,000 or 43%, principally due to the Gortdrum Mine which made no contribution to consolidated revenue in the year 1976 (year 1975 — \$7,487,000) as a result of the termination of operations at the mine in August, 1975. Revenue for the year 1976 was also adversely affected by a decline of 24% in concentrate production at the Tynagh Mine which was partly offset by a 25% increase in the lead price.

Termination of operations at the Gortdrum Mine was also the main reason for the decline of \$7,752,000 or 52% in operating costs for the year 1976. Consolidated operating costs for the year 1975 included \$6,090,000 in respect of Gortdrum. Other factors accounting for the decline were a lower tonnage of ore treated at the Tynagh Mine in the year 1976 combined with a reduction in operating costs as a result of the decline in the value of the pound sterling.

Administrative and general expenses increased by \$282,000 or 21%, due to cost increases generally and in particular, higher travel costs and consultancy fees.

The increased charge for government royalty of \$171,000 reflects an increase in income chargeable to royalty during the year 1976.

The 24% decline in depreciation and amortization charges was also mainly due to the termination of operations at Gortdrum Mine in August, 1975.

The \$540,000 reduction in the profit on disposal of fixed assets reflects the major disposals of fixed assets in 1975, following the termination of operations at the Gortdrum Mine.

The \$468,000 increase in exploration expenditures was mainly due to the activation of a joint venture programme in the State of Alaska, U.S.A., during 1976.

The \$606,000 increase in equity in losses of associated companies for the year 1976 was mainly due to the expensing of the Company's equity in exploration expenditures incurred by Westpark Exploration Company on a group of gold placer concessions in the State of Alaska, U.S.A., as a result of Westpark's decision to terminate its option agreements with respect to such claims.

Interest, dividends and sundry income increased by \$797,000 or 50% in the year 1976, principally due to an increase in interest income as a result of the increase in the company's holdings of cash including short-term securities and deposits.

The \$226,000 decline in exchange gains in the year 1976 was mainly due to the losses realized during the year on the sale of short-term U.S. securities and deposits (1975 — gains) partly offset by the increase in exchange gains during the year 1976 in relation to the company's pound sterling liabilities.

Market declines during 1976 resulted in the provision of an additional \$48,000 (1975 — \$240,000) for decline in the value of the company's marketable securities.

The \$599,000 increase in income tax expense mainly reflects the fact that income tax expense for the year 1976 was 227% more than the statutory Canadian income tax rate compared with 30% less for the year 1975. The reason for these variations from the statutory rate are explained in note 4 to the consolidated financial statements.

1975/74

Revenue from metals declined by 21% in 1975 compared with 1974. This decline was mainly due to the lower prices received in 1975 for lead and copper together with a lower production of lead concentrates at the Tynagh Mine. However, the lower copper price was largely offset by the higher tonnage of copper concentrates sold by Gortdrum Mine in 1975.

Consolidated operating expenses during 1975 increased by 14% compared with 1974, reflecting general increases in the cost of labour, materials and services used by the mines. These increases were partly offset by improved operating efficiencies at the Gortdrum Mine.

The 21% decrease in depreciation and amortization charges in 1975 was mainly due to the termination of operations at the Gortdrum Mine in August, 1975 resulting in less than a full year's charge.

Exploration costs increased by 74% in 1975 reflecting the higher level of drilling activities in the Republic of Ireland including the Tynagh Mine lease area.

The \$584,000 profit realized on the disposal of fixed assets relates to the Gortdrum Mine where virtually all of the fixed assets other than the concentrator and mercury extraction plant were sold following the termination of operations.

The increase in 1975 in the Company's equity in losses of associated companies was due to further write-offs by such companies of exploration expenditures previously deferred.

Interest, dividends and sundry income increased by \$27,000, principally due to an increase in interest income as a result of the increase in the Company's holdings of cash including short-term securities and deposits, less a decline in profits arising on the sale of marketable securities.

The \$473,000 increase in exchange gains in the year 1975 was mainly due to profits realized during the year on the sale of short-term U.S. securities and deposits.

Market declines during 1975 resulted in the provision of an additional \$240,000 (1974 — nil) for decline in the value of the Company's investments.

The decline in the charge for government royalty and income taxes in 1975 resulted from the decrease in pretax income from mining operations.

Net income for 1975, after income taxes, includes \$976,000 in respect of after tax income from mining operations at the Gortdrum Mine.

Price Range of Common Shares and Dividend Payments

The following table indicates the high and low closing prices for Northgate Common shares on The Toronto Stock Exchange (the principal trading market for Northgate shares) for the periods indicated, as reported by The Toronto Stock Exchange. Also shown are the per share dividend payments made in the respective periods.

	High	Low	Dividend
1975 1st Quarter	4.90	2.85	—
2nd Quarter	5.00	3.75	US\$0.25
3rd Quarter	4.50	3.35	—
4th Quarter	3.70	2.90	—
1976 1st Quarter	6.00	3.25	—
2nd Quarter	5.12	4.00	—
3rd Quarter	4.35	3.70	—
4th Quarter	5.50	3.20	—

FIVE YEAR COMPARAT

(expressed in thousands of Canadian dollars unless

Revenue — metals and metal concentrates

Operating expenses
Depreciation and amortization
Government royalty
Exploration
Interest on long term debt and amortization of debt discount and expenses
Profit on disposal of fixed assets

Equity in income (loss) of associated companies
Interest, dividends and profit on sale of investmer
Exchange gains
Provision for decline in value of investments
Income before income taxes and extraordinary ite
Income taxes
Income before extraordinary item
Provision for decline in value of investments
Net income (loss) for the year
Earnings (loss) per share
Income (loss) before extraordinary item
Extraordinary item
Net income (loss) per share for the year
Dividends paid per share
Number of shares used in computing earnings per share

YEAR END FINANCIAL HIGHLIGHTS

(expressed in thousands of Canadian dollars unless

Working capital
Investments in affiliated and other companies (net)
Fixed assets (net)
Other assets and deferred charges
Cash deposited as collateral
Total invested capital
Future and deferred income taxes
Shareholders' equity
Shares outstanding
Share price high/low (during the year)

FIVE YEAR COMPARATIVE SUMMARY OF PRODUCTION HIGHLIGHTS

Tons ore mined
Tons ore pre-concentrated
Tons ore treated in concentrator
Concentrate Production
Lead
Zinc
Bulk
Copper
Totals
Tons treated in concentrator
Tons of concentrates produced
Tons of roasted concentrates produced
Flasks of mercury recovered
Tons of concentrates sold
Flasks of mercury sold

SCOPE OF OPERATIONS

Northgate is a mining, exploration and investment holding company. Its base metal mining operations are at Tynagh, County Galway, Republic of Ireland. Production commenced in late 1965, initially from the open pit reserves and subsequently, from 1972 ore extraction began from the underground reserves. Since 1974 all ore mined was from underground reserves. The principal products of the mine are lead and zinc concentrates, some of which contain payable quantities of byproduct copper and silver. These concentrates are shipped to various European smelters. Total ore mined to the end of 1976 exceeds 7 million tons and cumulative concentrate production is approximately 1.4 million tons.

The Company's second mine at Gortdrum, County Tipperary, commenced operation on a commercial scale in 1968 and ceased in the latter half of 1975 when ore reserves were exhausted. The principal products of the Gortdrum Mine were silver bearing copper concentrates and byproduct mercury metal. In the period from 1968 to 1975 a total of approximately 3.6 million tons of ore was mined yielding about 102,100 tons of concentrates.

Northgate, through its various wholly owned Irish subsidiary companies, maintains an active exploration program throughout the Republic of Ireland. Northgate is also active in exploration in Canada and in the State of Alaska, U.S.A., principally through joint venture programs with other companies.

Northgate has a number of affiliated companies, principally Anglo United Development Corporation Limited (24%), Westfield Minerals Limited (45%) and Whim Creek Consolidated N.L. (32%), which provide a wide exposure to exploration and mine development in other countries, including mining operations in West Greenland and Australia, and exploration in Ireland, Canada, U.S.A. and Australia. In addition to its shareholdings in the foregoing affiliated companies, Northgate has substantial other investment holdings including an approximate 10% interest in Tara Exploration and Development Company Limited which, through its 75% owned subsidiary, Tara Mines Limited, is developing its large zinc-lead mine near Navan, Ireland, for production, scheduled for 1977. When in full production, the Tara Mine will produce approximately 500,000 short tons of concentrates annually, making it the largest zinc-lead producer in Europe and among the top six in the world. This \$150 million project resulted from the 1970 discovery at Navan under essentially the same management as Northgate's.

Northgate also holds a combined direct and indirect interest of approximately 9.6% in Vestgron Mines Limited which, through its subsidiary, Greenex A/S, operates a large zinc-lead mine in West Greenland with production in 1976 of approximately 180,000 metric tons of zinc and lead concentrates.

Northgate and its wholly owned subsidiaries have a total of about 400 employees, approximately 90% of whom are employed in mining operations and exploration. The Company has some 10,000 registered shareholders, mainly in Canada and the U.S.A.

Northgate Exploration Limited

OFFICERS AND CORPORATE MANAGEMENT

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Vice-President of Finance

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Vice-President

A. Garfield Heyes,
Vice-President of Corporate Relations

Peter McAleer
Vice-President

Andrea H. Meldrum
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Michael Stuart,
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Chairman of the Board

Sylvester P. Boland
Secretary

MINE MANAGER

D. H. B. FitzGerald

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